

HIGH DATA RATE COMMUNICATION SYSTEM FOR WIRELESS APPLICATIONS

ABSTRACT OF THE DISCLOSURE

5 A decoder for a communication system includes an iterative decoding module
configured to receive soft-input information bits. The iterative decoding module
iterates on probability estimates of the soft-input information bits to generate hard-
decision output information. The iterative decoding module includes a plurality of
arithmetic modules operating to generate and process both backward and forward
10 metrics substantially simultaneously using modulo arithmetic operations.

SD 608404 v3 (39908.6214)